

Application No.: 10/554090  
Docket No.: BA9318USPCT

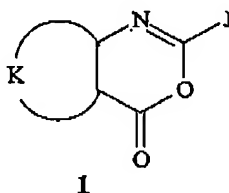
Page 2

Amendments to Claims

1. (currently amended) A method for preparing a ~~fused oxazinone~~ benzo[1,3]oxazinone, comprising:

contacting a pyrrole or pyrazole carboxylic acid with a sulfonyl chloride and an isatoic anhydride in the presence of a tertiary amine to form the ~~fused oxazinone~~ benzo[1,3]oxazinone, the nominal mole ratio of said sulfonyl chloride to said carboxylic acid being from about 1.0 to 1.5 and the nominal mole ratio of said isatoic anhydride to said carboxylic acid is from about 0.8 to 1.2.

2. (currently amended) The method of Claim 1 wherein the ~~fused oxazinone~~ benzo[1,3]oxazinone is a compound of Formula 1



wherein

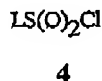
J is an optionally substituted ~~carbon moiety~~ pyrrole or pyrazole; and

K is, together with the two contiguous linking carbon atoms, a fused phenyl ring or a ~~fused 5- or 6-membered heteroaromatic ring~~, each ring optionally substituted;  
the carboxylic acid is a compound of Formula 2



wherein J is defined as in Formula 1;

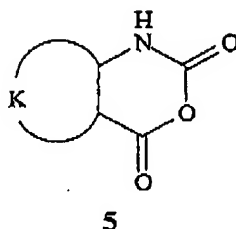
the sulfonyl chloride is a compound of Formula 4



wherein L is selected from alkyl, haloalkyl, and phenyl optionally substituted with from one to three substituents independently selected from alkyl or halogen; and  
the isatoic anhydride is a compound of Formula 5

Application No.: 10/554090  
 Docket No.: BA9318USPCT

Page 3



wherein K is defined as in Formula 1.

3. (original) The method of Claim 2 wherein the nominal mole ratio of the isatoic anhydride to carboxylic acid is from about 0.9 to 1.1.

4. (original) The method of Claim 3 wherein the nominal mole ratio of the tertiary amine to carboxylic acid is from about 2.0 to 4.0.

5. (canceled).

6. (currently amended) The method of Claim 5 2 wherein

K is, together with the two contiguous linking carbon atoms, a fused phenyl ring optionally substituted with from one to four substituents independently selected from G, U, W or R<sup>13</sup>; ~~or a fused 5- or 6-membered heteroaromatic ring optionally substituted with from one to three substituents independently selected from G, U, W or R<sup>13</sup>;~~

~~J is C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, C<sub>3</sub>-C<sub>8</sub> cycloalkyl or C<sub>3</sub>-C<sub>8</sub> cycloalkenyl, each optionally substituted with one or more substituents selected from the group consisting of R<sup>12</sup>, halogen, CN, NO<sub>2</sub>, hydroxy, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> alkylsulfinyl, C<sub>1</sub>-C<sub>4</sub> alkylsulfonyl, C<sub>1</sub>-C<sub>4</sub> alkylamino, C<sub>2</sub>-C<sub>8</sub> dialkylamino, C<sub>3</sub>-C<sub>6</sub> cycloalkylamino, and (C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>3</sub>-C<sub>6</sub> cycloalkyl)amino; or~~

J is a pyrrole or pyrazole phenyl ring, a benzyl group, a benzoyl group, a 5- or 6-membered heteroaromatic ring, an aromatic 8-, 9- or 10-membered fused carbobicyclic ring system, an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system ~~or a 5- or 6-membered nonaromatic heterocyclic ring optionally including one or two ring members selected from the group consisting of C(=O), SO or S(O)<sub>2</sub>, each optionally substituted with from one to two four substituents independently selected from G, U, W or R<sup>13</sup>;~~

each G is a 5- or 6-membered nonaromatic heterocyclic ring optionally including one or two ring members selected from the group consisting of C(=O), SO or S(O)<sub>2</sub>, each optionally substituted with from one to four substituents independently selected from W;

each U is a phenyl ring, a benzyl group, a benzoyl group, a 5- or 6-membered heteroaromatic ring, an aromatic 8-, 9- or 10-membered fused carbobicyclic ring

Application No.: 10/554090  
Docket No.: BA9318USPCT

Page 4

system, an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system, each optionally substituted with from one to four substituents independently selected from W;

each W is independently C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>2</sub>-C<sub>4</sub> alkenyl, C<sub>2</sub>-C<sub>4</sub> alkynyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>2</sub>-C<sub>4</sub> haloalkenyl, C<sub>2</sub>-C<sub>4</sub> haloalkynyl, C<sub>3</sub>-C<sub>6</sub> halocycloalkyl, halogen, CN, NO<sub>2</sub>, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> alkylthio, C<sub>1</sub>-C<sub>4</sub> alkylsulfinyl, C<sub>1</sub>-C<sub>4</sub> alkylsulfonyl, C<sub>1</sub>-C<sub>4</sub> alkylamino, C<sub>2</sub>-C<sub>8</sub> dialkylamino, C<sub>3</sub>-C<sub>6</sub> cycloalkylamino, (C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>3</sub>-C<sub>6</sub> cycloalkyl)amino or C<sub>3</sub>-C<sub>6</sub> trialkylsilyl;

each R<sup>12</sup> is independently R<sup>19</sup>C(=E)-; R<sup>19</sup>C(=E)L-; R<sup>19</sup>LC(=E)-; (R<sup>19</sup>)LC(=E)L-; -O(Q=)P(OR<sup>19</sup>)<sub>2</sub>-; -SO<sub>2</sub>LR<sup>18</sup>-; or R<sup>19</sup>SO<sub>2</sub>L-;

each R<sup>13</sup> is B(OR<sup>17</sup>)<sub>2</sub>; NH<sub>2</sub>; SH; thiocyanato; C<sub>3</sub>-C<sub>8</sub> trialkylsilyloxy; C<sub>1</sub>-C<sub>4</sub> alkyl disulfide; SF<sub>5</sub>; R<sup>19</sup>C(=E)-; R<sup>19</sup>C(=E)M-; R<sup>19</sup>MC(=E)-; (R<sup>19</sup>)MC(=E)M-; -OP(=Q)(OR<sup>19</sup>)<sub>2</sub>-; -S(O)<sub>2</sub>MR<sup>19</sup>; R<sup>19</sup>S(O)<sub>2</sub>M-;

each E is independently O, S, NR<sup>15</sup>, NOR<sup>15</sup>, NN(R<sup>15</sup>)<sub>2</sub>, N-S=O, N-CN or N-NO<sub>2</sub>;

each M is independently O, NR<sup>18</sup> or S;

Q is O or S;

each R<sup>15</sup> and each R<sup>19</sup> is independently H; C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with one or more substituents selected from the group consisting of CN, NO<sub>2</sub>, hydroxy, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> alkylthio, C<sub>1</sub>-C<sub>4</sub> alkylsulfinyl, C<sub>1</sub>-C<sub>4</sub> alkylsulfonyl, C<sub>1</sub>-C<sub>4</sub> haloalkylthio, C<sub>1</sub>-C<sub>4</sub> haloalkylsulfinyl, C<sub>1</sub>-C<sub>4</sub> haloalkylsulfonyl, C<sub>1</sub>-C<sub>4</sub> alkylamino, C<sub>2</sub>-C<sub>8</sub> dialkylamino, CO<sub>2</sub>H, C<sub>2</sub>-C<sub>6</sub> alkoxycarbonyl, C<sub>2</sub>-C<sub>6</sub> alkylcarbonyl, C<sub>3</sub>-C<sub>6</sub> trialkylsilyl, and a phenyl ring optionally substituted with one to three substituents independently selected from W; C<sub>1</sub>-C<sub>6</sub> haloalkyl; C<sub>3</sub>-C<sub>6</sub> cycloalkyl; or a phenyl ring optionally substituted with from one to three substituents independently selected from W;

each R<sup>17</sup> is independently H or C<sub>1</sub>-C<sub>4</sub> alkyl; or

B(OR<sup>17</sup>)<sub>2</sub> can form a ring wherein the two oxygen atoms are linked by a chain of two to three carbons optionally substituted with one or two substituents independently selected from methyl or C<sub>2</sub>-C<sub>6</sub> alkoxycarbonyl; and

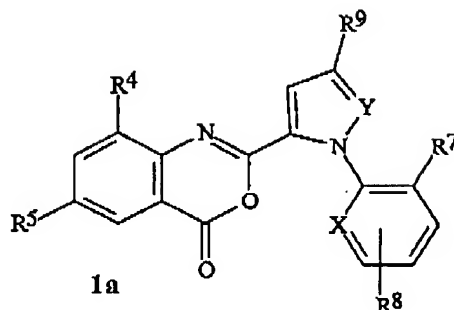
each R<sup>18</sup> is independently H, C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>1</sub>-C<sub>6</sub> haloalkyl.

7. (original) The method of Claim 6 wherein K is, together with the two contiguous linking carbon atoms, a fused phenyl ring optionally substituted with from one to four substituents independently selected from W or R<sup>13</sup>.

8. (original) The method of Claim 2 wherein the compound of Formula 1 is a compound of Formula 1a

Application No.: 10/554090  
Docket No.: BA9318USPCT

Page 5



wherein

X is N or CR<sup>6</sup>;

Y is N or CH;

R<sup>4</sup> is C<sub>1</sub>-C<sub>4</sub> alkyl or halogen;

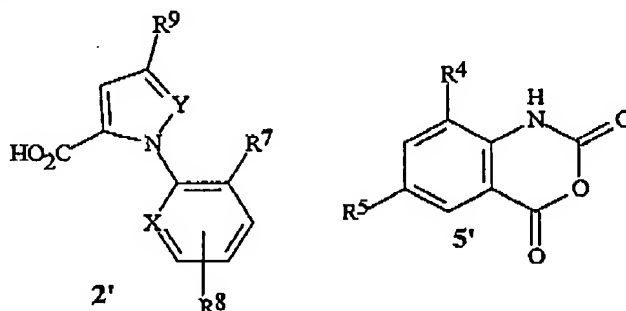
R<sup>5</sup> is H, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, CN or halogen;

R<sup>6</sup> and R<sup>7</sup> are independently H, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, halogen, CN or C<sub>1</sub>-C<sub>4</sub> haloalkoxy;

R<sup>8</sup> is H, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>2</sub>-C<sub>4</sub> alkenyl, C<sub>2</sub>-C<sub>4</sub> alkynyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>2</sub>-C<sub>4</sub> haloalkenyl, C<sub>2</sub>-C<sub>4</sub> haloalkynyl, C<sub>3</sub>-C<sub>6</sub> halocycloalkyl, halogen, CN, NO<sub>2</sub>, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> alkylthio, C<sub>1</sub>-C<sub>4</sub> alkylsulfinyl, C<sub>1</sub>-C<sub>4</sub> alkylsulfonyl, C<sub>1</sub>-C<sub>4</sub> alkylamino, C<sub>2</sub>-C<sub>8</sub> dialkylamino, C<sub>3</sub>-C<sub>6</sub> cycloalkylamino, (C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>3</sub>-C<sub>6</sub> cycloalkyl)amino, C<sub>2</sub>-C<sub>4</sub> alkylcarbonyl, C<sub>2</sub>-C<sub>6</sub> alkoxy carbonyl, C<sub>2</sub>-C<sub>6</sub> alkylaminocarbonyl, C<sub>3</sub>-C<sub>8</sub> dialkylaminocarbonyl or C<sub>3</sub>-C<sub>6</sub> trialkylsilyl;

R<sup>9</sup> is CF<sub>3</sub>, OCF<sub>3</sub>, OCHF<sub>2</sub>, OCH<sub>2</sub>CF<sub>3</sub>, S(O)<sub>p</sub>CF<sub>3</sub>, S(O)<sub>p</sub>CHF<sub>2</sub> or halogen; and  
p is 0, 1 or 2;

the compound of Formula 2 is a compound of Formula 2' and the compound of Formula 5 is a compound of Formula 5'



wherein the definitions of X, Y, R<sup>4</sup>, R<sup>5</sup>, R<sup>7</sup>, R<sup>8</sup> and R<sup>9</sup> are the same as for Formula 1a.

9. (original) The method of Claim 8 wherein

X is N;

Application No.: 10/554090  
Docket No.: BA9318USPCT

Page 6

Y is N;

R<sup>4</sup> is CH<sub>3</sub>, F, Cl or Br;

R<sup>5</sup> is CF<sub>3</sub>, CN, F, Cl, Br or I;

R<sup>7</sup> is Cl or Br;

R<sup>8</sup> is H; and

R<sup>9</sup> is CF<sub>3</sub>, OCHF<sub>2</sub>, OCH<sub>2</sub>CF<sub>3</sub>, Cl or Br.

10. (canceled).

11. (canceled).